

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claim 16 is herein amended to correct the objection noted thereto in paragraph 2 of the Office Action.

Claims 12, 14, and 16 are pending in this application. Claim 14 stands withdrawn from consideration. Claims 12 and 16 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. patent application publication 2005/0153725 to Naghian et al. (herein "Naghian") in view of U.S. patent 7,027,432 to Carolan et al. (herein "Carolan"). That rejection is traversed by the present response as discussed next.

Each of independent claims 12 and 16 is herein amended to clarify certain features recited therein. Those claims now further recite the transfer device and mobile communication method operate in a mobile communication system including:

a first access network provided and managed by a first communications carrier, a mobile terminal authorized to communicate data by the first communications carrier, and a second access network provided and managed by a second communications carrier different than the first communications carrier[.]

The claims are directed to a transfer device and mobile communication method in a mobile communication system in which mobile terminals that join in a mobility management service provided by their own separate communication carriers can use a mobility management service even if the mobile stations use a connection management service provided and are controlled by another communications carrier due to traveling, so that it becomes possible to sufficiently acquire users (subscribers) of the mobility management service.<sup>1</sup>

A mobile communication system of the presently claimed invention includes a first access network provided and managed by a first communications carrier, a mobile terminal authorized to communicate data by the first communications carrier, a second access network

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<sup>1</sup> Specification for example at page 2, lines 12-20 and page 51, lines 21-34.

provided and managed by a second communications carrier different than the first communications carrier, and a transfer device controlled by the first communications carrier. (Specification for example at page 8, line 29 to page 9, line 31).

The transfer device arranged by the first communication carrier operates to receive, at the transfer device, packets addressed to a mobile terminal connected to an access router controlled by the second communications carrier in the second access network, store terminal information unique to the mobile terminal allowed to use the transfer packet, and determine whether the packet received by the communication unit is a packet from a mobile terminal allowed to use packet transfer performed by the transfer device based on whether information concerning the mobile terminal included in the received packet coincides with the stored terminal information, and thereby determine whether or not to transfer the packets received by the communications unit to the mobile terminal connected to the access router controlled by the second communications carrier and the second access network. (Specification for example at page 8, line 29 to page 9, line 31, and page 18, line 21 to page 19, line 12).

One feature to which the claims are directed, and with reference to Figure 1 in the present specification as a non-limiting example, is to allow a mobile terminal 20 which, for example, is managed by the access network (A) of a first communications carrier to also operate with another access network (B) that is managed by a separate second communications carrier. In that respect the claims as currently written are specifically directed to an environment in which different access networks (A), (B) are managed by different communications carriers. Applicants submit the features of the claimed invention are neither taught nor suggested by either of the applied art to Naghian nor Carolan.

Naghian now applied as the primary reference is cited to disclose a first access network 110 and a second access network 120. Applicants submit Naghian differs from the claims as written as Naghian does not disclose nor suggest that the noted first access network

110 is managed by a different communications carrier than the second access network 120.

Naghian appears to disclose both of the networks 110 and 120 are controlled by a *same operator*.

Naghian specifically discloses the use of a radio access network (RAN) 110, but Naghian appears to indicate the routers 125<sub>A</sub>-125<sub>C</sub> of that RAN 110 are managed by an operator of the AAA server 190 (see Naghian at paragraph [0109]. Naghian also appears to indicate the same operator of the AAA server 190 controls the core network 120, see Naghian at paragraphs [0111]-[0114].

That is, in Naghian both of the radio access network (RAN) 110 and the core network 120 are assumed to be managed by the *same* operator or communications carrier.

The claims are directed to a different environment such as shown for example in Figure 1 in the present specification in which the access network (A), access network (B), and access network (C) are all managed by *different* communications carriers. Naghian is not directed to such a device.

In such ways, the claims as written are believed to positively recite features neither taught nor suggested by Naghian.

Moreover, applicants submit no disclosures in Carolan cure the above-noted deficiencies in Naghian, and in that respect applicants respectfully submit Carolan is also deficient in not even overcoming the recognized deficiencies in Naghian.

Initially, applicants submit Carolan differs from the claims as written as Carolan is not directed to a transfer device in a mobile communication system including a first access network provider managed by a first communications carrier, a mobile terminal authorized to communicate data by the first communications carrier, and a second access network provided and managed by a second communications carrier different than the first communications

carrier. In such ways Carolan is not even directed to a similar environment as in the claimed invention.

Further, the Office Action recognizes Naghian does not disclose a “terminal information storage unit” and a “determination unit”, and to cure such deficiencies in Naghian the outstanding rejection cites Carolan. Applicants submit Carolan does not even cure those recognized deficiencies in Naghian.

Carolan is directed to a connection method of a network access device 101 connected to one of service networks, provided by a first service provider or a second service provider, through a router 130. Carolan discloses the router 130 (noted as a transfer device) stores a list of addresses allocated to subscribers of a first service provider. The router 130 similarly stores the list of addresses allocated to subscribers of the second service provider (column 4, lines 51-65). In Carolan the router 130 makes a determination based on whether a source address of received packets routed from a network access device 101 coincides with the address stored in the list 2d, and thereby determines whether or not to transfer received packets to the service network provided by the first service provider. Similarly, the router 130 determines whether or not to transfer the received packets to the service network provided by the second provider (column 4, lines 31-65).

Thereby, Carolan discloses the router 130 determines which service provider is available to the network access device 101 that is connected to the router 130.

However, Carolan is similarly deficient as in Naghian as Carolan does not provide a mobility management service to mobile terminals using a connection management service provided and controlled by a second communications carrier, which is different from a first communications carrier, for example due to traveling, if the mobile terminals join in the mobility management service provided by the first communications carrier, so that it

becomes possible to sufficiently acquires users (subscribers) of the mobility management service.

Thereby, applicants submit Carolan also does not disclose or suggest a transfer device controlled by the first communications carrier that determines whether or not to transfer packets to the mobile terminal connected to the access router controlled by the second communications carrier, based on user information of the mobile terminal stored by the first communications carrier, i.e., whether the transfer device controlled by the first communications carrier stores the terminal information of the mobility terminal. Thereby, Carolan cannot cure the deficiencies in Naghian with respect to the claims as currently written.

In view of the foregoing comments, applicants respectfully submit the claims as currently written positively recite features neither taught nor suggested by Naghian in view of Carolan, and thus the claims as written are allowable over that applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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